

1600

RAW SEQUENCE LISTING DATE: 05/08/2003 PATENT APPLICATION: US/09/769,952 TIME: 10:08:03

Input Set : A:\US09769952.raw

Output Set: N:\CRF4\05082003\1769952.raw

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1 <110> APPLICANT: LEXICON GENETICS INCORPORATED
 2 <120> TITLE OF INVENTION: Novel Human Enzymes and Polynucleotides
         Encoding the Same
 4 <130> FILE REFERENCE: LEX-0118-PCT
 5 <140> CURRENT APPLICATION NUMBER: US/09/769,952
 6 <141> CURRENT FILING DATE: 2001-01-25
 7 <150> PRIOR APPLICATION NUMBER: US 60/179,000
 8 <151> PRIOR FILING DATE: 2000-01-28
 9 <160> NUMBER OF SEQ ID NOS: 15
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13 <211> LENGTH: 831
14 <212> TYPE: DNA
15 <213> ORGANISM: Homo sapiens
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                                                                                 60
18
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                                                                                120
19
         ttgccggaat gctttaattc tccatatgga gcgaaatatt ttcctgaata tgcagagaaa
                                                                                180
20
         attcctggtg aatccacaca gaagctttct gaagtagcaa aggaatgcag catatatctc
                                                                                240
21
         attggagget ctatecetga agaggatget gggaaattat ataacacetg tgetgttt
                                                                                300
22
         gggcctgatg gaactttact agcaaagtat agaaagatcc atctgtttga cattgatgtt
                                                                                360
23
         cctggaaaaa ttacatttca agaatctaaa acattgagtc cgggtgatag tttctccaca
                                                                                420
24
         tttgatactc cttactgcag agtgggtctg ggcatctgct acgacatgcg gtttgcagag
                                                                                480
25
         cttgcacaaa tctacgcaca gagaggctgc cagctgttgg tatatccagg agcttttaat
                                                                                540
26
         ctgaccactg gaccagccca ttgggagtta cttcagcgaa gccgggctgt tgataatcag
                                                                                600
27
         gtgtatgtgg ccacagcete teetgeeegg gatgacaaag ceteetatgt tgeetgggga
                                                                                660
28
         cacagcaccg tggtgaaccc ttggggggag gttctagcca aagctggcac agaagaagca
                                                                                720
29
         atcgtgtatt cagacataga cctgaagaag ctggctgaaa tacgccagca aatccccgtt
                                                                                780
         tttagacaga agcgatcaga cctctatgct gtggagatga aaaagcccta a
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32 <210> SEO ID NO: 2
33 <211> LENGTH: 276
34 <212> TYPE: PRT
35 <213> ORGANISM: Homo sapiens
36 <400> SEQUENCE: 2
37
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38
                                                                  15
39
         Lys Ser Asp Asn Val Thr Arg Ala Cys Ser Phe Ile Arg Glu Ala Ala
40
                                         25
41
         Thr Gln Gly Ala Lys Ile Val Ser Leu Pro Glu Cys Phe Asn Ser Pro
42
43
         Tyr Gly Ala Lys Tyr Phe Pro Glu Tyr Ala Glu Lys Ile Pro Gly Glu
44
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Ser Thr Gln Lys Leu Ser Glu Val Ala Lys Glu Cys Ser Ile Tyr Leu

45

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46
                              70
                                                   75
47
          Ile Gly Gly Ser Ile Pro Glu Glu Asp Ala Gly Lys Leu Tyr Asn Thr
48
49
         Cys Ala Val Phe Gly Pro Asp Gly Thr Leu Leu Ala Lys Tyr Arg Lys
50
                                           105
         Ile His Leu Phe Asp Ile Asp Val Pro Gly Lys Ile Thr Phe Gln Glu
51
52
                                      120
                                                           125
53
         Ser Lys Thr Leu Ser Pro Gly Asp Ser Phe Ser Thr Phe Asp Thr Pro
54
                                  135
                                                       140
55
         Tyr Cys Arg Val Gly Leu Gly Ile Cys Tyr Asp Met Arg Phe Ala Glu
56
                              150
                                                   155
57
         Leu Ala Gln Ile Tyr Ala Gln Arg Gly Cys Gln Leu Leu Val Tyr Pro
58
                          165
                                              170
59
         Gly Ala Phe Asn Leu Thr Thr Gly Pro Ala His Trp Glu Leu Leu Gln
60
                                          185
61
         Arg Ser Arg Ala Val Asp Asn Gln Val Tyr Val Ala Thr Ala Ser Pro
62
         Ala Arg Asp Asp Lys Ala Ser Tyr Val Ala Trp Gly His Ser Thr Val
63
64
                                  215
                                                       220
65
         Val Asn Pro Trp Gly Glu Val Leu Ala Lys Ala Gly Thr Glu Glu Ala
66
                              230
                                                   235
67
         Ile Val Tyr Ser Asp Ile Asp Leu Lys Lys Leu Ala Glu Ile Arg Gln
68
                          245
                                              250
69
         Gln Ile Pro Val Phe Arg Gln Lys Arg Ser Asp Leu Tyr Ala Val Glu
70
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                                          265
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         Met Lys Lys Pro
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75 <211> LENGTH: 480
76 <212> TYPE: DNA
77 <213> ORGANISM: Homo sapiens
78 <400> SEQUENCE: 3
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79
                                                                                   60
80
         attttctgtt tggaaacage ttactgcaga gtgggtctgg gcatctgcta cgacatgcgg
                                                                                  120
         tttgcagagc ttgcacaaat ctacgcacag agaggctgcc agctgttggt atatccagga
81
                                                                                  180
82
         gettttaate tgaccaetgg accageceat tgggagttae tteagegaag eegggetgtt
                                                                                  240
83
         gataatcagg tgtatgtggc cacagcctct cctgcccggg atgacaaagc ctcctatgtt
                                                                                  300
84
         gcctggggac acagcaccgt ggtgaaccct tggggggagg ttctagccaa agctggcaca
                                                                                  360
85
         gaagaagcaa tegtgtatte agacatagae etqaaqaage tqqetqaaat acqccaqcaa
                                                                                  420
         atccccgttt ttagacagaa gcgatcagac ctctatgctg tggagatgaa aaagccctaa
                                                                                  480
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89 <211> LENGTH: 159
90 <212> TYPE: PRT
91 <213> ORGANISM: Homo sapiens
92 <400> SEQUENCE: 4
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93
94
                                              10
95
         Phe His Leu Cys Ile Phe Cys Leu Glu Thr Ala Tyr Cys Arg Val Gly
96
                     20
                                          25
                                                               30
```

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97
         Leu Gly Ile Cys Tyr Asp Met Arg Phe Ala Glu Leu Ala Gln Ile Tyr
98
                  35
                                      40
99
         Ala Gln Arg Gly Cys Gln Leu Leu Val Tyr Pro Gly Ala Phe Asn Leu
100
          Thr Thr Gly Pro Ala His Trp Glu Leu Leu Gln Arg Ser Arg Ala Val
101
102
                                                    75
103
          Asp Asn Gln Val Tyr Val Ala Thr Ala Ser Pro Ala Arg Asp Asp Lys
104
105
          Ala Ser Tyr Val Ala Trp Gly His Ser Thr Val Val Asn Pro Trp Gly
106
                                           105
107
          Glu Val Leu Ala Lys Ala Gly Thr Glu Glu Ala Ile Val Tyr Ser Asp
108
                                       120
                                                            125
109
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110
111
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112
                               150
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115 <211> LENGTH: 366
116 <212> TYPE: DNA
117 <213> ORGANISM: Homo sapiens
118 <400> SEQUENCE: 5
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          ccaggagett ttaatetgae caetggaeca geecattggg agttaettea gegaageegg
120
                                                                                   120
121
          getgttgata atcaggtgta tgtggccaca geeteteetg eeegggatga caaageetee
                                                                                   180
122
          tatgttgcct ggggacacag caccqtqqtq aacccttqqq qqqaqqttct aqccaaaqct
                                                                                   240
          ggcacagaag aagcaatcgt gtattcagac atagacctga agaagctggc tgaaatacgc
123
                                                                                   300
124
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                                                                                   360
125
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                                                                                   366
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128 <211> LENGTH: 121
129 <212> TYPE: PRT
130 <213> ORGANISM: Homo sapiens
131 <400> SEQUENCE: 6
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133
134
          Leu Leu Val Tyr Pro Gly Ala Phe Asn Leu Thr Thr Gly Pro Ala His
135
                      20
                                           25
136
          Trp Glu Leu Leu Gln Arg Ser Arg Ala Val Asp Asn Gln Val Tyr Val
137
138
          Ala Thr Ala Ser Pro Ala Arg Asp Asp Lys Ala Ser Tyr Val Ala Trp
139
140
          Gly His Ser Thr Val Val Asn Pro Trp Gly Glu Val Leu Ala Lys Ala
141
                              70
                                                   75
142
          Gly Thr Glu Glu Ala Ile Val Tyr Ser Asp Ile Asp Leu Lys Lys Leu
143
144
          Ala Glu Ile Arg Gln Gln Ile Pro Val Phe Arg Gln Lys Arg Ser Asp
145
                      100
                                           105
                                                               110
146
          Leu Tyr Ala Val Glu Met Lys Lys Pro
147
                  115
                                      120
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 150 <211> LENGTH: 507
 151 <212> TYPE: DNA
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154
                                                                                     60
155
           attttctgtt tggaaacagc ttactgcaga gtgggtctgg gcatctgcta cgacatgcgg
                                                                                   120
156
           tttgcagagc ttgcacaaat ctacgcacag agaggctgcc agctgttggt atatccagga
                                                                                   180
157
           gcttttaatc tgaccactgg accagcccat tgggagttac ttcagcgaag ccgggctgtt
                                                                                   240
158
           gataatcagg tgtatgtggc cacagcctct cctgcccggg atgacaaagc ctcctatgtt
                                                                                   300
159
           gcctggggac acagcaccgt ggtgaaccct tggggggagg ttctagccaa agctggcaca
                                                                                   360
160
           gaagaagcaa tcgtgtattc agacatagac ctgaagaagc tggctgaaat acgccagcaa
                                                                                   420
161
           atccccgttt ttagacagaa gcgaaatatt ttcctgaata tgcagagaaa attcctggtg
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164 <210> SEO ID NO: 8
165 <211> LENGTH: 168
166 <212> TYPE: PRT
167 <213> ORGANISM: Homo sapiens
168 <400> SEQUENCE: 8
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171
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172
                                            25
173
          Leu Gly Ile Cys Tyr Asp Met Arg Phe Ala Glu Leu Ala Gln Ile Tyr
174
175
          Ala Gln Arg Gly Cys Gln Leu Leu Val Tyr Pro Gly Ala Phe Asn Leu
176
177
          Thr Thr Gly Pro Ala His Trp Glu Leu Leu Gln Arg Ser Arg Ala Val
178
                                                   75
          Asp Asn Gln Val Tyr Val Ala Thr Ala Ser Pro Ala Arg Asp Asp Lys
179
180
181
          Ala Ser Tyr Val Ala Trp Gly His Ser Thr Val Val Asn Pro Trp Gly
182
                                           105
183
          Glu Val Leu Ala Lys Ala Gly Thr Glu Glu Ala Ile Val Tyr Ser Asp
184
                                       120
185
          Ile Asp Leu Lys Lys Leu Ala Glu Ile Arg Gln Gln Ile Pro Val Phe
186
              130
                                   135
                                                       140
187
          Arg Gln Lys Arg Asn Ile Phe Leu Asn Met Gln Arg Lys Phe Leu Val
188
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                                                   155
                                                                        160
189
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193 <211> LENGTH: 393
194 <212> TYPE: DNA
195 <213> ORGANISM: Homo sapiens
196 <400> SEQUENCE: 9
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                                                                                   60
          ccaggagett ttaatetgae caetggaeca geecattggg agttaettea gegaageegg
198
                                                                                  120
199
          gctgttgata atcaggtgta tgtggccaca gcctctcctg cccgggatga caaagcctcc
                                                                                  180
```

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Input Set : A:\US09769952.raw

Output Set: N:\CRF4\05082003\I769952.raw

200 201 202 203		tatgttgcct ggggacacag caccgtggtg aacccttggg gggaggttct agccaaagct ggcacagaag aagcaatcgt gtattcagac atagacctga agaagctggc tgaaatacgc cagcaaatcc ccgtttttag acagaagcga aatattttcc tgaatatgca gagaaaattc ctggtgaatc cacacagaag ctttctgaag tag													240 300 360 393				
	<210>				Τ0														
	<211><212>																		
		> ORGANISM: Homo sapiens > SEQUENCE: 10																	
210						01	т		a 1		_								
211		Met A	119	Pne	Ата	5 5	ьeu	Ата	GIN	TTE		Ala	Gln	Arg	Gly		Gln		
212			11ه.	Va 1	Ттт	-	C1	3 J a	Dha	3	10	m1	m1		_	15			
213		Leu L	ieu	vaı	20	PIO	GTÀ	Ата	Pne		Leu	Thr	Thr	GTA		Ala	His		
214		Trp G	1111	T.611	-	Gln	λνα	Cor	λνα	25	17 - 1	7 ~~	3	01	30	_			
215		Trp G		35	Leu	GIII	AIG	ser	40	Ald	vaı	Asp	Asn		Va⊥	Tyr	Val		
216		Ala T			Ser	Dro	Δla	λκα		λαη	T ***	7 J n	C = ==	45 T	77- 7	. 1	_		
217		5	0	- · · · ·	DCI	110	пта	55	АБР	АБР	гуѕ	Ата	Ser 60	Tyr	vaı	Ата	Trp		
218		Gly H		Ser	Thr	Va1	Val		Dro	Фrn	C137	Clu		Τ	77.	T	21-		
219		65					70	11011	110	112	СТУ	75	Val	ьеu	нта	гуѕ	80		
220		Gly T	hr	Glu	Glu	Ala		Val	Tvr	Ser	Asn		Δen	Lau	Tvc	Two	Ton		
221		-				85		· -	- 1	001	90		пър	пси	цуз	БуБ 95	Leu		
222		Ala G	lu	Ile	Arg	Gln	Gln	Ile	Pro	Val		Ara	G1n	Lvs	Arσ	Asn	Tle		
223					100					105		9	0111	-75	110	ASII	116		
224		Phe L	eu i	Asn	Met	Gln	Arg	Lys	Phe		Val	Asn	Pro	His	Ara	Ser	Phe		
225				115			-	_	120				=	125	5	-	- 110		
226		Leu Ly	ys																
227			30																
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		TYPE: DNA																	
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236237		ttgccggaat gctttaattc tccatatgga gcgaaatatt ttcctgaata tgcagagaaa 180														.80			
238		attectggtg aatecacaca gaagetttet gaagtagcaa aggaatgcag catatatete 240														40			
239		attggagget ctatecetga agaggatget gggaaattat ataacacetg tgetgtgttt 300														00			
240		gggcctgatg gaactttact agcaaagtat agaaagatcc atctgtttga cattgatgtt 360 cctggaaaaa ttacatttca agaatctaaa acattgagtc cgggtgatag tttctccaca 420																	
241		t++	aaac	ia L	taca tata	tacc	a ag	aatc	taaa	aca	ttga	gtc	cggg	tgat	ag t	ttct	ccaca	4	20
	<210>	tttgatactc gtatgtacca gataagtttg cctctttag SEQ ID NO: 12 459																	
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		TYPE: PRT																	
		ORGANISM: Homo sapiens																	
247	<400>	SEQUENCE: 12																	
248		Met Thr Ser Phe Arg Leu Ala Leu Ile Gln Leu Gln Ile Ser Ser Ile																	
249		1				5			_cu		3111 . 10	ueu (GIII .	TTE (ser . 15	тте		
250		Lys Se	r A	sp A	Asn '	_	Thr A	Ara A	Ala (Phe '	Tle	ል ኮመ <i>ነ</i>			۱la		
251		-		- 2	20	•				25 25		- 110	/		31u. 30	ыта Б	71a		
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VERIFICATION SUMMARY

DATE: 05/08/2003

PATENT APPLICATION: US/09/769,952

TIME: 10:08:04

Input Set : A:\US09769952.raw

Output Set: N:\CRF4\05082003\I769952.raw